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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,456	02/20/2001	Hwan-Seong Yu	8733.394.00	5029

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EXAMINER

CHOWDHURY, TARIFUR RASHID

ART UNIT PAPER NUMBER

2871

DATE MAILED: 08/28/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/785,456

Applicant(s)

YU, HWAN-SEONG

Examiner

Tarifur R Chowdhury

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art (AAPA) in view of Toshio et al., (Toshio), JP 2-210402.**

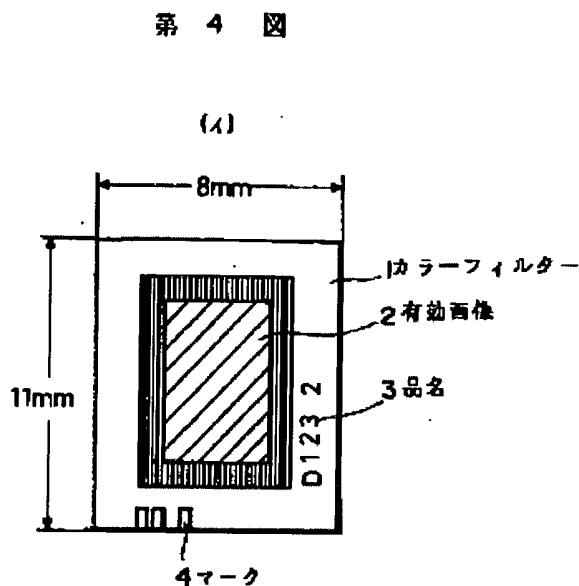
5. The AAPA described in the present application discloses in pages 3-4 and shows in Fig. 2, a color filter substrate for use in a liquid crystal display device comprising:

- a substrate;
- a black matrix (33) having a pattern on the substrate;
- red, green and blue color filters (35) corresponding to the pattern; and
- an alignment key (37) at the periphery of the substrate.

The AAPA differs from the claimed invention because it does not disclose the

identification mark being formed at the periphery of the substrate.

Toshio discloses color filters with identification mark. Toshio also discloses that by providing identifiable codes/marks in the non-effective image areas of the filters (applicant's periphery of the substrate), it is possible to eliminate the generation of defects and identification errors in the identification work (abstract; Fig. 4).



Toshio is evidence that ordinary workers in the art of liquid crystal would find a reason, suggestion or motivation to employ an identification mark at the periphery of the substrate.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the color filter substrate of the AAPA such that

employing a identification mark so that the generation of defects and identification errors in the identification work is eliminated, as per the teachings of Toshio.

The AAPA described in page 3, lines 6-9 also disclose the use of a transparent conductive layer over the color filter.

Further, since the method of manufacturing the color filter substrate is merely a list of forming each component and each component must be formed to make the device, the method of manufacturing would be inherent to the device.

Accordingly, claims 1, 10, 11, 13, 14, 16, 17, 26, 27 and 29 would have been obvious.

As to claims 2-4, 18-20 and 31-33, the AAPA described in the present application discloses in page 4, lines 5-11 that the black matrix (33) includes chrome or chrome and chrome oxide double layer or resin having carbon.

As to claims 5-7 and 21-23, Toshio shows in Fig. 4 that the identification mark includes a sign and a character wherein the character includes an alphabet and a number.

As to claims 8, 9, 24, 25, 34 and 35, using the identification mark for storing information such as manufacturer, color filter type, fabrication method and black matrix type is within the level of ordinary skill in the art and thus would have been obvious to optimize the usage of the identification mark.

As to claims 12 and 28, using an overcoat between the transparent conductive layer and the color filter is common and known for several reasons such as to protect the color filter from any contamination and thus would have been obvious.

As to claims 15 and 30, forming the identification mark adjacent the alignment key is considered as design choice and thus would have been obvious.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) USPAT 5,760,421 discloses a semiconductor device including indices for identifying positions of elements in the device.

b) USPAT 4,343,877 discloses system for design and production of integrated circuit photomasks and integrated circuit devices wherein one corner of each adjacent circuitry is designated as a product information area, which may include manufacturer name and a product indemnification code.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (703) 308-4115. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on (703) 305-4842. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7005 for regular communications and (703) 308-7724 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

August 20, 2002

A handwritten signature in black ink, appearing to read "T. Chowdhury", with a stylized, flowing script.

T. Chowdhury
Patent Examiner
Technology Center 2800